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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,813	06/26/2003	Young-Woo Lee	1293.1746	2773

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WASHINGTON, DC 20005

EXAMINER
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ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/27/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/603,813

Applicant(s)

LEE ET AL.

Examiner

Jorge L. Ortiz-Criado

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/06/2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5,10-16,18 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,10-16,18 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/06/2006 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 5, 10-16, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuroda et al. U.S. Patent No. 6,144,625.

Art Unit: 2627

Regarding claim 1, Kuroda et al. discloses an apparatus identifying a type of a disc (see Figs 1-2, 6; see col. 6, lines 25-67; col. 11, lines 9-11), comprising:

an RF (radio frequency) amplifier (7; 7a) amplifying light reflected by the disc;  
an LPP signal detector (13) detecting an LPP (Land Pre-Pit) signal from output signals of the RF amplifier; and

a system controller (9) identifying a type of the disc according to whether the LPP signal is detected by the LPP signal detector

wherein the LPP signal detector (13) detects the LPP signal by slicing push-pull signals output from the RF amplifier (7, 7a) at a constant level (see col. 8, lines 6-29), and

the system controller (9) determines that the disc is a DVD(-)/ "R" type disc when the LPP signal is detected (see Fig. 6, step 25 "YES", step S23),

and that the disc is a DVD(+)/ "other" type disc when the LPP signal is not detected (see Fig. 6, step 25 "NO", step S17).

Regarding claim 5, Kuroda et al. discloses a method of discriminating a type of a disc, comprising: detecting an LPP signal from signals reproduced from the disc; and identifying a type of the disc according to whether the LPP signal is detected (col. 11, lines 9-59; Fig. 6)

wherein the detecting the LPP signal includes detecting the LPP signal by slicing push-pull signals at a constant level (see col. 8, lines 6-29),

the identifying of the type of the disc includes determining that the disc is a DVD(-)/ "R" type disc when the LPP signal is detected (see Fig. 6, step 25 "YES", step S23),

and that the disc is a DVD(+)/ “other” type disc when the LPP signal is not detected (see Fig. 6, step 25 “NO”, step S17).

Regarding claim 10, Kuroda et al. discloses an apparatus identifying a disc type (see Figs 1-2, 6; see col. 6, lines 25-67; col. 11, lines 9-11), comprising:

an RF amplifier (7, 7a) that produces a push-pull signal from a light wave reproduced from a disc; and

an LPP signal detector (13) that detects a certain voltage level (reference value) in the push-pull signal (see col. 8, lines 6-29);

wherein if the certain voltage level is detected (see col. 8, lines 6-29) the disc is identified as a DVD(-)/ “R” type disc (see Fig. 6, step 25 “YES”, step S23) and if the certain voltage level is not detected the disc is identified as a DVD(+)/ “other” type disc (see Fig. 6, step 25 “NO”, step S17)

wherein the LPP detector (13) detects an LPP signal according to detection of the certain voltage level by slicing the push-pull signal at a constant level (see col. 8, lines 6-29).

Regarding claim 11, Kuroda et al. discloses wherein the LPP detector (13) detects an LPP in the push-pull signal by detection of the certain voltage level (see col. 8, lines 6-29).

Regarding claim 12, Kuroda et al. discloses a system controller (9) that controls a disc drive and identifies the disc type (Figs 1).

Regarding 13, Kuroda et al. discloses a servo controller that enables tracking and focusing (see col. 7, lines 45-59; col. 9, lines 18-24).

Regarding 14, Kuroda et al. discloses an optical detector (1) that detects the light wave reflected from the disc (see Fig. 1).

Regarding claim 15, Kuroda et al. discloses wherein the optical detector (1) comprises: a structure divided into four sections having a first photodiode, a second photodiode, a third photodiode, and a fourth photodiode (see Fig. 1).

Regarding claim 16, Kuroda et al. discloses wherein the RF amplifier (7, 7a) comprises: a current-to-voltage converter having a first amplifier, a second amplifier, a third amplifier, and a fourth amplifier, wherein the four amplifiers convert output signals from corresponding first through fourth photodiodes of the optical detector to voltage values (inherent to Kuroda et al.); and

a push-pull operator having a first adder (19), a second adder (20), and a subtracter (21), wherein the first adder adds output signals of the first amplifier and the second amplifier to produce a first added signal, the second adder adds output signals of the third amplifier and the fourth amplifier to produce a second added signal, and the subtracter adds the first added signal and the second added signal to produce the push-pull signal (see Fig 2, # 7a).

Regarding claim 18, Kuroda et al. discloses an optical detector (1) having a bi-sectional structure that includes a first photodiode (B1B4) and a second photodiode (B2B3) (see Fig 2).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 22 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kuroda et al. U.S. Patent No. 6,144,625.

Regarding claim 22, Kuroda et al discloses where in the DVD are recordable discs and detects the type determines that the disc is a DVD(-)/ "R" type disc when the LPP signal is detected, and that the disc is a DVD(+)/ "other" type disc when the LPP signal is not detected, hence determines disks among DVD (-) and DVD (+), such as read only (R) or Rewritable (RW), therefore meets the claim.

In the alternative assuming *arguendo* that Kuroda et al does not mention or disclose that these type of disk are in fact included among them.

The examiner take s official notice that the DVD(-) type discs include DVD-RW and DVD-R discs; and DVD(+) type discs include DVD+RW and DVD+R discs are common knowledge and well known in the art, for example of evidence where the fact noticed was readily verifiable, see Applicant's Background of the invention [003]-[005].

*Response to Arguments*

Applicant's arguments filed 10/30/2006 have been fully considered but they are not persuasive.

In regard to Applicant's arguments that Kuroda et al reference fails to disclose, suggest or being capable of determine that the disc is a "DVD(+)", the examiner does not concurs.

Kuroda et al. clearly discloses wherein the system controller (9) determines that the disc is a DVD-R type disc when the LPP signal is DETECTED (see Fig. 6, step 25 "YES", step S23) and that the disc is a DVD(+)/ "LBELED OTHER in Kuroda" type disc when the LPP signal is NOT DETECTED (see Fig. 6, step 25 "NO", step S17).

As far as the examiner can tell, Applicant's "DVD(+)", as claimed, is merely the disk DVD which does not contains the LPP (LAND-PR-EPIT) and corresponds to Kuroda et al's "LBELED OTHER TYPE", which does not contain the such LPP (LAND-PR-EPIT), hence Kuroda et al discloses, suggest and is capable of performing the invention as claimed. The claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The examiner cannot find such difference.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(12:30 pm- 9:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER